

September 13, 2005

Lotus Vermeer, Ph.D.
Project Director, Santa Cruz Island
The Nature Conservancy of California
3639 Harbor Boulevard., Suite 201
Ventura, California 93001

Subject: Standardization of Protocols for Island Fox Reintroductions

Dear Dr. Vermeer:

As you are aware, the Island Fox Recovery Coordination Group (RCG) had a conference call on July 12, 2005, and a second call on July 26, 2005, to discuss the impending island fox releases this fall. During this meeting, we discussed the importance of coordinating and standardizing island fox pre-release, release, and monitoring protocols and its value to the recovery and long term conservation of the island fox. We understand that protocols have not been developed for this year, and that their development is pending what release/retention strategies will be followed in 2005. This is a good time to develop and refine these protocols to enhance what we can learn.

The reason for suggesting the standardization and refinement of the protocols is to obtain information to determine the causes of differential survivorship and reproduction after release in order to develop the most cost-effective and successful fox reintroduction methods for the future. The RCG recognized the importance of coordinating and standardizing these protocols and for that purpose drafted technical analysis request 3.5 (TAR 3.5). The RCG requested that the technical group:

develop minimum standardized pre-release and post-release management and monitoring protocols for all listed subspecies of island foxes. Ensure compatibility between short-term and long-term monitoring protocols.

TAR 3.5 was issued in the spring of 2005. However, due to the unavailability of task force group members, TAR 3.5 has not been completed. The RCG still considers the standardization of protocols an important step toward island fox recovery.

To assist you, we are providing the following tasks and methodologies for your consideration in standardizing these protocols.

The Land Managers from the northern islands are encouraged to work together to write standardized protocols. Standardized protocols should help to: 1) ensure that all staff treat foxes similarly (comparability and reliability of captive and post-release care); 2) determine the best reintroduction strategies by using experimental methods (learn what works and what doesn't work); and 3) ultimately develop the most cost-effective methodology for reintroduction of foxes.

In order to understand what promotes survivorship of foxes after release, we suggest standardizing: 1) pre-release personality assessments; 2) pre-release medical exams and treatment; 3) post-release trapping protocols; and 4) post-release monitoring protocols. Minimum monitoring standards across the northern islands would enhance the likelihood that we know the causes of fox mortalities after reintroduction and thus are able to incorporate adaptive management strategies to change protocols to improve fox survivorship. The RCG recommends monitoring each released fox a minimum of twice a week throughout the first year.

Furthermore, testing certain assumptions experimentally would enable the Land Managers to find the most cost-effective methods for fox reintroductions (e.g., Does existing scientific evidence support the idea that pre-release feeding of live prey or post-release food supplementation promotes survivorship of foxes? Is it most effective to release litters, pairs or family groups? What are the best times of year for releases?). If an experimental design will be incorporated into your protocols, we suggest limiting the number of variables tested. Variables to be considered for experimentation include: 1) choice of animals and groups being released; 2) pre-release environment (cage size and complexity); 3) pre-release feeding and enrichment (e.g., live prey - what, how much, how often, when, how long); 4) release methodology (e.g., time of day, time of year, how many animals, how many sites, and what type of site); and 5) post-release support (e.g., food supplementation - what, how, where, when, how often, how much, and how long).

We strongly encourage you and your contractors to work with the Channel Islands National Park staff to develop standardized pre-release, release, and monitoring protocols for the island fox and to put them into practice to the fullest extent possible. We also encourage the joint development of experimental procedures.

We would like to emphasize that only with detailed and careful documentation of both effective and ineffective methods can we progress toward more successful releases in the future.

I would appreciate hearing your intentions regarding the RCG's suggestions. RCG members are available to assist in developing the standardized protocols and experimental design. Please let me know in writing what actions you intend to take, the relevant implementation timelines, and an explanation for your decision(s). If you have questions, please contact me at (805) 644-1766, extension 311.

Sincerely,



Carl T. Benz
RCG, Chair

Enclosure

cc: Russell Galipeau, Channel Islands National Park

Appendix A

Analysis 3.5:

A. Given the current state of knowledge, develop minimum standardized pre-release and post-release management and monitoring protocols for all listed subspecies of island foxes. Ensure compatibility between short-term and long-term monitoring protocols.

B. Identify priority research that will permit the comparison of methodologies to determine the most successful pre- and post-release management, i.e., the management protocols that result in the greatest survivorship and reproductive success of released foxes.

Variables that need consideration include pre-release housing and adaptation to release sites, feeding regimes, differential fox behavior, social groupings, medical exams, and post-release food supplementation and shelter (how, what, how much, when, for how long).

*Relates to: San Miguel, Santa Rosa, Santa Cruz,
Technical Expertise Groups involved: CP, WP, R, FH*